

## CLAIMS:

1. An optical measuring device for providing a measurement of an optical device under test – DUT – comprising:  
  
5 a measuring unit adapted for providing an optical stimulus signal for the DUT and/or receiving a response signal of the DUT, the measuring unit being one of a group comprising: a time domain reflectometer, an optical time domain reflectometer, a WDM-tester, a chromatic dispersion tester, a polarization mode dispersion tester, a loss tester, and a multi-path interference tester, and  
  
10 a visual fault localization unit adapted for visually localizing faults within the DUT or a connection thereto and comprising a visual light source.
2. The optical measuring device of claim 1, wherein the measuring unit and the visual fault localization unit are coupled to a signal direction unit, and the signal direction unit is further coupled to a connector representing an interface of the optical measuring device for coupling the DUT thereto.
- 15 3. The optical measuring device of claim 2, wherein the signal direction unit is adapted to provide a signal direction for optical signals received by the measuring device at the connector.
4. The optical measuring device of claim 2, wherein the signal direction unit is adapted to provide a signal direction for optical signals provided by the  
20 measuring unit and/or the visual fault localization unit through the connector towards the DUT and/or any optical network connected therebetween.
5. The optical measuring device of claim 2, wherein the signal direction unit comprises at least one of a switch or a coupling unit.
6. The optical measuring device of claim 2, wherein the signal direction unit is  
25 provided to allow both the visual fault localization unit and the measuring unit to couple optical signals to the connector, and to direct substantially all optical signals received by the measuring device at the connector to the measuring unit.
7. The optical measuring device of claim 1, wherein the visual light source is a

red light source.

8. The optical measuring device of claim 1, wherein the response signal is at least one of a signal emitted from the DUT or a signal of the DUT in response to an applied stimulus signal.
- 5 9. The optical measuring device of claim 1, wherein the DUT comprises at least one of a discrete optical component, a fiber, or a fiber network with or without discrete optical components.